high dose VitD3 were significantly decreased ($P < 0.05$); the activity of caspase-3, TNF-a, CD40 in all drug intervention groups were significantly decreased ($P < 0.01$); no significant difference in mRNA expression was found between TNBS group and all drug intervention groups. Rats in continuous high dose VitD3 group had hyperealcemia and serum level of creatinine was significantly increased in continuous high dose VitD3 group when compared with the other groups ($P < 0.05$).
Conclusions: VitD3 can alleviate TNBS induced experimental colitis by regulating T cell immunity.

P011
The impact of omentectomy on the severity of colitis and adipocytokine expression

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Background: Regarding the unidentified role of omental adipose tissue on intestinal inflammation, we hypothesized that complete removal of omentum may alter the severity of intestinal inflammation by changing cytokine and adipokine expression. We aimed to determine whether removal of omentum has any impact on the severity of colitis and the expression of cytokines and adipokines in an experimental model of trinitrobenzene sulphonic acid (TNBS) colitis induced after 6 months following omentectomy.
Methods: Forty Wistar albino rats (20 M, 20 F) were divided into two groups. Group A (n = 20) underwent laparotomy and Group B (n = 20) underwent sham laparatomy without omentectomy. After 6 months following omentectomy, induction of colitis was performed by a single intracolonic administration of 0.25ml of 30% ethanol (V/V) containing 30 mg of 2,4,6-TNBS. Control groups received 0.25 ml of vehicle (30% ethanol) with a similar method. Rats were divided into four groups: 1. Omentectomy & TNBS colitis; 2. Sham operated & TNBS colitis; 3. Omentectomy & ethanol; 4. Sham operated & ethanol. Distal colon and mesenteric fat tissue were removed for histological and biochemical assessments. Myeloperoxidase (MPO) activity, tumor necrosis factor-alpha (TNF-alpha), interleukin (IL)-18, were determined in colonic tissue homogenates by enzyme-linked immune sorbent assay (ELISA). Leptin and adiponectin levels were determined both in colonic and mesenteric fat tissue homogenates by ELISA. Expression of adipocytokines and severity of colitis were compared between the groups.
Results: Macroscopic and histologic scoring of colitis tended to be higher in rats who underwent omentectomy and administered TNBS, the severity of colitis and MPO levels were not significantly altered with omentectomy. TNF-alpha ($p = 0.006$), IL-18 ($p = 0.002$) and adiponectin ($p = 0.004$) levels were significantly higher in Group 1 than those in Group 2. Omentectomy did not alter colonic leptin levels significantly. Moreover, mesenteric adipocytokine levels did not change significantly between the groups.
Conclusions: Omentectomy led to significantly increased TNF-alpha, IL-18 and adiponectin levels that was accompanied by an increased tendency of colonic damage. The effects of increased cytokines on microscopic and histological findings may be a subsequent event. Removal of omental adipose tissue might also enhance dysregulation of mesenteric adipocytokine expression. This is the first study investigating long-term effects of omentectomy in an experimental model of colitis and demonstrating that omentum keeps the novel protective role in intestinal inflammation.

P012
The effects of mesenchymal stem cells as a cell therapy in animal model of Crohn's disease

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Background: Inflammatory bowel disease (IBD) is a complex immunological disease characterized by chronic inflammation with unknown cause. Interleukin-10 Knockout (IL-10 KO) mouse is a well-established murine model of IBD which develop a spontaneous intestinal inflammation that resemble with Crohn's disease.
In the present study, human adipocyte derived stem cells (hAMSC) were administrated to IL-10 KO mice to find out anti-inflammatory effects of hAMSCs may attenuate progress or treat of IBD.
Methods: IBD was induced in IL-10 KO mouse by feed piroxicam mixed diet for 1 week and then, 2×10^6 hAMSC were injected into peritoneum and changed to normal diet. After 1 week, the mice were sacrificed and tissue sample was harvested and tissue score for inflammation and inflammation related gene expression were evaluated.
Results: hAMSC administrated group showed reduced inflammatory changes significantly. The effect was more powerful in ascending colon than descending or cecum in regional analysis. In categorical analysis, protection effect on chronic inflammation was more evident than acute inflammation considering ordinary progress of IBD; inflammatory cells appear, goblet cells change, mucosa thickening, submucosa cell infiltration, and destruction of architecture. RT-PCR analysis showed that Rantes, toll like receptor, IL-4 expression were not noticeably different between groups but IL-12, INF, TNF-a showed significant decrease in hAMSC group.
Conclusions: hAMSC attenuate IBD induction in IL-10 KO mouse by suppression of inflammatory cytokine expression and this expected to be influenced through type 1 helper T cell pathway. Even though single injection of hAMSC, the effect influenced chronic event of inflammatory changes. These findings suggested that administration of hAMSCs show beneficial effect on animal model of CD and emerge a therapeutic option in inflammatory bowel disease.

P013
The effects of *Schistosoma japonicum* eggs antigen on SAMP1/Yit mice, a spontaneous ileitis model

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Background: It is known that the development of Crohn's disease (CD) is related to a polarized Th1 response.
Exposure to *Schistosoma japonicum* (SJ) eggs causes strong Th2 response, which is inhibitory against the Th1 response. Furthermore, it activates a network of regulatory T cells (Tregs) that secret interleukin-10. This cytokine down-regulate Th1 response in mice. Several studies showed that exposure to SJ eggs protected mice from experimental colitis. However,

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